Presented For Approval: Final Version

Macon-Bibb County Vision Zero Action Plan

October 13, 2020







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EXECUTIVE SUMMARY

Vision Zero is a strategy to eliminate traffic fatalities and serious injuries among all road users. First implemented in Sweden in the 1990s, *Vision Zero* has proved successful across Europe—and has been gaining momentum in the United States since 2014. At the time of this report's publication, more than 40 U.S. cities, counties, and Metropolitan Planning Organizations (MPOs) have committed to the Vision Zero strategy.

Vision Zero takes a Safe System Approach to achieve safe, healthy, and equitable mobility for all road users. A Safe System Approach is holistic and requires the road system be considered in its entirety from infrastructure to policies.

The Macon-Bibb County Vision Zero Action Plan (referred to as Action Plan) is a product of the Federal Highway Administration's (FHWA's) assistance to Macon-Bibb County in the county's effort to reach the zero deaths goal. It is a part of a pilot implementation of the <u>Transportation</u> <u>Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities</u> report.

Between 2014 and 2018, there were 147 traffic fatalities and 794 serious injuries in Macon-Bibb County. By developing and adopting this Action Plan, Macon-Bibb County is committed to **eliminating fatalities and serious injuries by 2040**. This Action Plan is the first step in a much larger, multi-year effort toward the zero goal.

This Action Plan incorporates the guiding principles of the Safe System Approach and includes the following components necessary to implementing a plan that will have a long-lasting effect for all Macon-Bibb residents and visitors.

- Political Commitment. The Macon-Bibb County Commission—the legislative branch of county government—is committed to implementing a Vision Zero plan. In May 2016, the commission passed a resolution supporting Vision Zero as a strategy to create safer streets across Macon-Bibb County. This commitment included developing and implementing this Action Plan.
- Multidisciplinary Leadership. The Vision Zero Working Group (VZWG) is the advisory board guiding development and implementation of Vision Zero in Macon-Bibb County. The VZWG includes representatives from Macon-Bibb Planning & Zoning Commission, Pedestrian Safety Review Board (PSRB), engineering department, Bibb County Schools, Bibb County Sheriff's Office, public affairs, and Bike Walk Macon. The VZWG oversaw every step of the Action Plan development and met almost on a weekly basis throughout project duration.

- **Safe System Approach.** The Safe System Approach acknowledges that traffic fatalities and serious injuries are preventable and that system designers (including transportation planners, engineers, and policymakers) have a responsibility to put safety first in the design and operations of a road system.
- **Data-driven.** This Action Plan used the most recent 5 years of complete crash data (January 1, 2014, through December 31, 2018) provided by the Macon-Bibb County Sheriff's Office and the Georgia Department of Transportation (GDOT). The data helped prioritize resources so that investments provide the most benefits, as driven by a reduction in fatalities and serious injuries. Crash trends and feedback from county staff were used to identify emphasis areas—categories of crashes that represent some of the most prevalent crash characteristics.
- **Community Engagement.** This plan was developed in consultation with agencies and organizations at the county, regional, and State levels through a series of workshops and meetings, as well as an online survey to gauge safety priorities and concerns of stakeholders. These priorities and concerns, combined with the data analysis, form the basis of the strategies and actions in this Action Plan.
- Equitable. The Action Plan also takes an equitable approach by establishing inclusive actions to provide safe transportation options for all road users across the county. This approach recognizes the fact that certain communities are more affected than others. According to the U.S. Census Bureau, 2010–2014 American Commuter Survey 5-Year Estimates, 22 percent of rental households and 12 percent of all households in Macon-Bibb County have no access to a private vehicle. Those without access to a car must use other means of transportation, such as public transit, bicycling, and walking. However, as transportation facilities have mostly favored personal vehicles, there are opportunities to improve the transportation network to better accommodate those who do not have access to a car. Implementing this plan will help prioritize resources to invest in the transportation options for these populations as well as a high injury street network most affected by crashes.

LIST OF ACRONYMS

ASAP Accelerating Safety Activities Program

CMF Crash Modification Factor

FHWA Federal Highway Administration

FTA Federal Transit Administration

GDOT Georgia Department of Transportation

GEARS Georgia Electronic Accident Reporting System

GIS Geographic Information Systems

GOHS Governor's Office of Highway Safety

HEAT 100 Days of Summer Highway Enforcement of Aggressive Driving

HIN High Injury Network

HSP Highway Safety Plan

HSIP Highway Safety Improvement Program

KSI Killed or Seriously Injured

LPI Leading Pedestrian Interval

LRTP Long-range Transportation Plan

LTAP Local Technical Assistance Program

MATS Macon Area Transportation Commission

MGRC Middle Georgia Regional Commission

MPO Metropolitan Planning Organization

MTA Macon Transit Authority

NHTSA National Highway Traffic Safety Administration

PSA Public Service Announcement

PSRB Pedestrian Safety Review Board

RSA Road Safety Audit

SHSP Strategic Highway Safety Plan

TIP Transportation Improvement Program

UPWP Unified Planning Work program

VZWG Vision Zero Working Group

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1. Introduction

Macon–Bibb County is a consolidated city-county located in the State of Georgia, approximately 85 miles south of Atlanta. Macon-Bibb County encompasses 255 square miles and has a population of 153,159 (2019 estimate), making it the 13th largest county in the State.

The Macon-Bibb County Board of Commission—led by a 10-member Commission with the mayor serving as its Chair—is the legislative branch of the Macon-Bibb County Government. This body enacts the laws, ordinances, and resolutions for the local consolidated government. Commissioners are elected every four years.

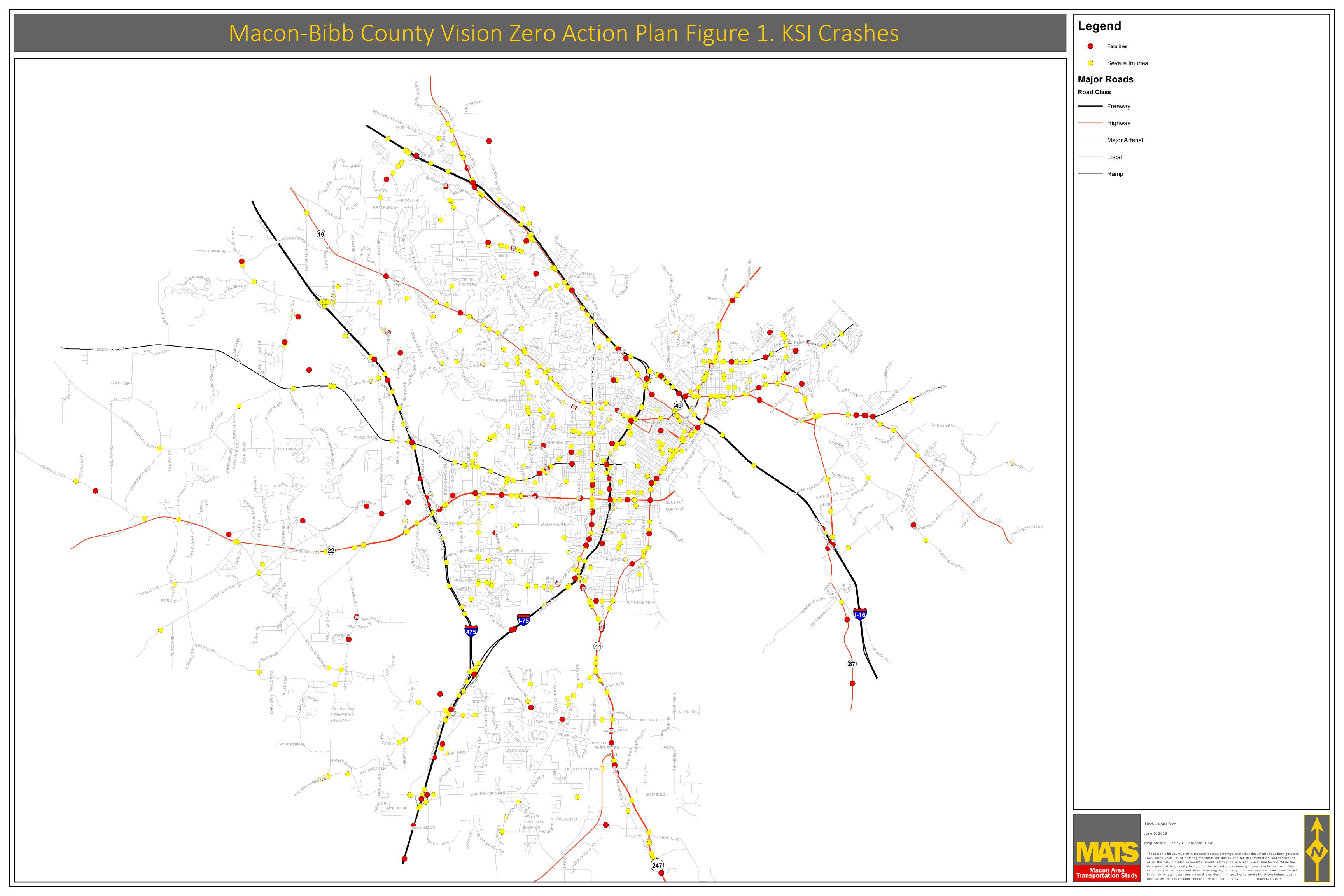
Between 2014 and 2018, there were 147 traffic fatalities and 794 serious injuries in Macon-Bibb County. Figure 1 shows the location of Macon-Bibb County's killed or serious injury (KSI) crashes.

Pedestrians are at particular risk in the county and account for 41 deaths (27.9 percent of all fatalities) and 376 injuries (47.4 percent of all serious injuries) during this time. This problem is exacerbated by the fact that 22 percent of rental households and 12 percent of all households in Macon-Bibb County have no access to a private vehicle (U.S. Census Bureau, 2010–2014 American Commuter Survey 5-Year Estimates). With no access or limited access to a private vehicle, many households in Macon-Bibb County need safe, comfortable, and reliable public transit, pedestrian amenities, and bicycle facilities to meet their daily transportation needs.

1.1 ABOUT VISION ZERO

Vision Zero is a strategy to eliminate traffic fatalities and serious injuries among all road users. First implemented in Sweden in the 1990s, *Vision Zero* has proved successful across Europe—and since 2014, the strategy has been gaining momentum in the United States. At the time of this report's publication, more than 40 U.S. cities, counties, and Metropolitan Planning Organizations (MPOs) have committed to the Vision Zero strategy.

An important component of Vision Zero is changing current thinking about the preventability of serious injury and fatal crashes. Continued use of the word *accident* implies that motor vehicle crashes are not preventable. In reality, these events are predictable results of specific systems and policies, such as roadway designs and posted speeds. The Federal Highway Administration (FHWA) has supported the National Highway Traffic Safety Administration (NHTSA) in using the word *crash* in lieu of *accident*. This is part of the culture change that is often referred to as key to making significant shifts in roadway safety.



1.1.1 MACON-BIBB COUNTY VISION ZERO RESOLUTION

In May 2016, the Macon-Bibb County Commission passed a resolution supporting Vision Zero as a strategy for creating safer streets throughout Macon-Bibb County. The county commissioner's support for Vision Zero strategies makes a clear statement that the cost of traffic fatalities and injuries is too high. Adopting the Vision Zero resolution was an important first step to reduce traffic fatalities and serious injuries on Macon-Bibb's roadways.

1.2 Macon-Bibb County Vision Zero Action Plan

The Macon-Bibb County Vision Zero Action Plan (referred to as Action Plan) is a product of the Federal Highway Administration's (FHWA's) assistance to Macon-Bibb County in the county's effort to reach the zero deaths goal. It is a part of a pilot implementation of the <u>Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities</u> Report.

Through development and adoption of this Action Plan, the Macon-Bibb County is committed to **eliminating all fatalities and serious injuries by 2040**. Developing this plan highlights the County's commitment to provide a safe road network for all road users and reduce fatalities and serious injuries on the roadways. This Action Plan outlines how the county will achieve Vision Zero by 2040.

2. ACTION PLAN DEVELOPMENT PROCESS

Developing the Action Plan took more than 18 months and was the result of a thorough and thoughtful process involving many stakeholders and participants. It is important to note that while the Plan-development process was relatively short, the vision and desire for this Action Plan has existed for many years and is the culmination of outreach efforts beginning with the county's adoption of the Vision Zero Resolution in May 2016. The Plan included data analysis, research, and extensive stakeholder and public engagement to identify the County's safety priorities.

2.1 ADOPTING THE SAFE SYSTEM APPROACH

Macon-Bibb County adopted the Safe System Approach to develop this Action Plan. The Safe System Approach, shown in Figure 2, entails acknowledging that traffic fatalities and serious

injuries are preventable and that system designers (including transportation planners, engineers and policymakers) have a responsibility to put safety first. The six guiding principles of Safe System Approach are¹:

- Death and serious injuries are unacceptable;
- Humans make mistake;
- Humans are vulnerable;
- Responsibility is shared;
- Safety is proactive; and
- Redundancy is crucial.



Figure 2. Safe System Approach.

¹ The Safe System, https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

2.1.1 ELEMENTS OF SAFE SYSTEM

Figure 2 presents the five essential elements of the Safe System Approach, which reflect a holistic view of road safety.

- **Safe Road Users**: The Safe System Approach involves both those who manage and design the roads and those who use them; therefore, they must all be responsible for eradicating serious injuries and fatalities on the roads. As such, all road users are expected to use the roads safely and comply with the rules. Safe road users are competent at the basics of safe road use, including paying full attention to the road.
- **Safe Vehicles**: Vehicles are designed and regulated to minimize the occurrence and consequences of crashes. Making vehicles safer can involve installing *active* safety measures, which can prevent collisions. They can also involve autonomous emergency braking or *passive* safety measures, which protect occupants when a crash does occur; this includes seatbelts and airbags. It is also crucial to ensure that vehicles are roadworthy, that is, regulated to the highest standards.
- Safe Speeds: Speed management is a critical element of the Safe System Approach. .

 The Safe System Approach aims to establish appropriate speed limits according to the features of the road, the function it serves, and the physical tolerance of road users present (i.e., adjusting the speed at which crashes occur to ensure that the body's limit for physical trauma is not reached). Setting speed limits should also be determined by the protective quality of the road sections and vehicles in use rather than the behavior of road users. The Safe System Approach also works to enforce existing speed limits and to educate road users to ensure that they comply with speed limits.
- Safe Roads: Roads are designed to reduce the risk of crashes and the severity of injury, should a collision occur. One way to achieve this is to separate road users in space and time using appropriate geometric design such as raised medians and crossings, protected intersections, roadway narrowing and/or other physical measures such as separation of bile facilities that encourage slower speeds and safe behaviors.
- Post-crash Care: When a person is injured in a collision, they rely on emergency first
 responders to quickly locate them, stabilize their injury, and transport them to medical
 facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident
 management, appropriate treatment at emergency facilities, and other activities.

2.2 STAKEHOLDER AND PUBLIC ENGAGEMENT

2.2.1 VISION ZERO WORKING GROUP

The Vision Zero Working Group (VZWG) is the advisory board guiding development and implementation of Vision Zero in Macon-Bibb County.

The VZWG is comprised of representatives from county agencies and other safety partners who will shepherd implementation of Vision Zero in the years ahead.

This multidisciplinary group included county staff from planning, engineering, enforcement, education, public affairs, Pedestrian Safety Review Board (PSRB), and Bike Walk Macon.

The VZWG oversaw every step of the Action Plan development and met almost on a weekly basis throughout the entire project duration.

Macon-Bibb Vision Zero Working Group (VZWG)

- Gregory Brown, Sr. Planner
 (Macon-Bibb Planning & Zoning Commission)/Chair of Pedestrian
 Safety Review Board (PSRB)
- Tom Ellington (past PSRB Chair)
- Nigel Floyd, County Traffic Engineer
- Robert Dallas (citizen at-large)
- David Gowan, Director of Risk
 Management, Bibb County
 School District
- Rachel Gambill, Public Affairs
- Capt. Brad Wolfe, Bibb County Sheriff's Office
- Rachel Hollar, Bike Walk Macon

2.2.2 STAKEHOLDER MEETINGS

As the following discusses, an in-person introductory meeting was held in 2018, followed by another stakeholder meeting in 2019.

Introductory In-person Meeting

The VZWG held an introductory in-person meeting (November 27, 2018) to communicate with the existing transportation-related boards and the mayor regarding the scope of the project and the county's commitment to the project goals and objectives.

The VZWG met with the PSRB in the morning and with the Board of Commissioners in the afternoon.

The PSRB is charged with finding ways to make all of county roads, streets, and alleys safe for pedestrians. The PSRB has nine (9) members, including the mayor, two (2) members from the Bibb County Sheriff's Office, a member from the Macon-Bibb County Commission, director of the Macon-Bibb County Facilities Management Department, traffic engineer, administrator of the Macon-Bibb County Health Department, and two (2) citizens at-large.

The Board of Commissioners is composed of nine (9) Commissioners and the mayor. This body enacts the laws, ordinances, and resolutions for the local consolidated government.

The purpose of these initial meetings was to discuss the overall effort and ensure all parties understood expectations and desired outcomes and plan for the future kickoff meeting with the larger stakeholder group.

Stakeholder Kickoff Meeting

Following the preliminary meeting, the VZWG led a stakeholder Kickoff meeting on January 30, 2019. This meeting engaged a mix of county, regional, State, and Federal stakeholders. Participants shared their goals for the plan, as well as current efforts across departments and at all levels of government to address traffic safety. Macon-Bibb County Departments, including planning, police, schools, emergency services, and public works, were joined by outside stakeholders, including GDOT, FHWA, and others.

2.2.3 INTERACTIVE WEB TOOL

The county also collected public comment through an online interactive tool, which allowed citizens to pinpoint specific areas of concern on a map.

The tool contained a map of the county, which was viewable as a street map or an aerial photo, and could be enlarged to identify specific streets/intersections. Next to the map in a sidebar, a drop-down menu provided a list of questions where users could provide feedback. The web tool was available online for approximately 6 weeks. The county received more than 200 comments, which were incorporated in the development of this plan.

2.2.4 VISION ZERO ACTION PLAN WORKSHOP

PSRB conducted an open house-style Vision Zero Action Plan workshop in October 2019 to provide the public and relevant stakeholders with an opportunity to provide input in developing this Action Plan.

The workshop was well publicized prior to the event with the Macon-Bibb County Public Affairs Office sharing a press release (Figure 3) in a newsletter distributed to more than 3,000 subscribers and an <u>article posted on the Macon-Bibb County website</u>.

Coming up: more key dates & community events



Vision Zero Summit Workshop aims to eliminate pedestrian deaths

We need your help to save lives on Macon-Bibb streets! The public is invited to the Pedestrian Safety Review Board's Vision Zero Action Plan Workshop on Wednesday, October 16 from 8:30 a.m. – 2:30 p.m. in Commission Chambers in Government Center (700 Poplar Street).

To RSVP for the free workshop, so the Board can prepare for seating and lunch, contact Kaye Cleveland in the Clerk of Commission's Office. You can email her at kcleveland@maconbibb.us or call (478) 751-7262.

To learn more about the Pedestrian Safety Review Board and its mission, **visit the website here**.

Figure 3. Vision Zero Action Plan Workshop Public Notice.

Meeting attendees included the mayor, commissioners, and representatives from the Macon-Bibb County Planning and Engineering, Public Works, Public Affairs, Economic and Community Development, Macon Transit Authority (MTA), Bibb County Sheriff's Office, Fire Department, Greater Macon Chamber of Commerce, American Association of Retired Persons (AARP) Georgia Chapter, Middle Georgia Regional Commission (MGRC), Bike Walk Macon, GDOT District 3 staff and Local Technical Assistance Program (LTAP), Georgia Governor's Office of Highway Safety (GOHS), and FHWA Georgia Division Office.

Throughout the meeting, the mayor stressed the need to improve traffic safety as Macon strives to be a center of development, culture, and opportunity. The creation of the PSRB and the work of the board was also discussed. The mayor indicated his strong support for developing this Action Plan.



Figure 4. Mayor Robert Reichert speaking at the Vision Zero Action Plan Workshop.

2.3 OVERVIEW OF CURRENT ROAD SAFETY IN MACON-BIBB

Macon-Bibb County is committed to making its streets safe for all users and this is reflected in several of the County's road safety initiatives, programs, and projects as discussed below. Many of these efforts will continue through this Action Plan, as well as additional data driven programs that are identified in section 2.5.

2.3.1 PEDESTRIAN AND BICYCLIST SAFETY

According to Georgia Pedestrian Safety Action Plan (PSAP, 2018-2022), Macon-Bibb ranks fifth highest in Georgia in terms of pedestrian fatalities. Responding to concerns about pedestrian safety, the Macon-Bibb County Commission approved an ordinance sponsored by the County's District 3 commissioner that created the Pedestrian Safety Review Board (PSRB). The PSRB is charged with finding ways to make all of the county's roads safe for pedestrians.

Macon-Bibb is the only city/county in Georgia that has a dedicated review board for pedestrian safety. Since its creation in 2015, the PSRB has grown to 22 members and has conducted several pedestrian safety-related activities:

- Held two Pedestrian Safety Summits in <u>2016</u> and <u>2017</u>;
- Improved data collection and <u>mapping</u> of unsafe hot spots;
- Launched On the Move (Figure 5) and Cross the Walk education campaigns; and
- Led Open Streets events, opening streets to people on foot and wheels while closing them to cars.



Figure 5. PSRB Pedestrian on the Move Campaign.

In July 2015, the County's first grassroots bicycle and pedestrian advocacy organization – Bike Walk Macon - was founded to enhance mobility to create a more vibrant, healthy, and equitable city. Since then, Bike Walk Macon has made tremendous strides to enhance and encourage biking and walking in Macon. Some of their recent accomplishments include:

- Green Bike Lane Installed Macon's first green bike lanes in front of the Bike Walk Macon office at 338 Poplar Street (Figure 6).
- Bike Lanes One block of bike lanes was added on Second Street.
- Bike Racks Several new bike racks were installed, including: one at Society Garden, four at High Street Park, and several along the Walnut Street Connector Trail at the Ocmulgee National Monument.
- Macon Bike Walk Month Hosted several activities to promote Macon Bike Walk Month during the month of May. Events included Jane's Walk Macon, Macon Car Free Day, Bike and Ride Free Day with Macon Transit Authority, and Bike to Work Day.

- Open Streets Macon Bike Walk Macon's 4th Open Streets program closed 1.5 miles of street to cars from Ash Street (at Telfair Street) to Montpelier Avenue (at Birch Street).
 There were 1500 attendees, 40 activity partners offering health, music, and art activities.
- Police Training Bike Walk Macon partnered with Bike Law Georgia and Georgia Bikes to teach bicycle safety and traffic law workshops for 60 officers from Bibb County Sheriff's Office (Figure 6).





Figure 6. Green bike lanes (left) and Police training (right).

2.3.2 SPEED MANAGEMENT

Macon-Bibb County, through the PSRB, has reduced speed limits on several major thoroughfares; implemented traffic calming devices, such as raised crosswalks with rectangular rapid flashing beacons and installed speed awareness signs and speed humps in some residential neighborhoods (Figure 7).





Figure 7. County Speed Reduction Initiatives.

In addition, the Bibb County Sheriff's Office, in cooperation with GOHS, conducts The 100 Days of Summer Highway Enforcement of Aggressive Traffic (HEAT) project campaign. It is a multijurisdictional highway safety enforcement and outreach campaign designed to reduce crashes resulting from speeding and aggressive driving during the period from Memorial Day to

Labor Day. The GOHS public information team promotes this initiative with summer-long earned media through news conferences, social media messaging, and paid media Public Service Announcements (PSAs).

2.3.3 ROAD SAFETY AUDITS (RSAs)

Road Safety Audits (RSAs) are a formal safety performance examination of an existing or future road or intersection by an audit team. RSAs are used to identify potential solutions leading to both short-term improvements and longer-term efforts, including construction projects. It is a proactive and innovative approach that helps identify safety issues to be addressed in future road improvement projects.

Starting in 2016, Macon-Bibb County and GDOT began conducting RSAs on several roadways in the county. The RSAs were initiated by concerns of high speeds, lack of dedicated pedestrian facilities, long distances between protected crossings, sight distance issues for drivers making turns, and the high incidence of pedestrian fatal crashes. Although fatal pedestrian crashes accounted for 26 percent of all fatal crashes in the county between 2011 and 2015, they accounted for 91 percent of the fatal crashes in the RSA study corridors. The RSA study corridors also accounted for 35 percent of all fatal pedestrian crashes and 10 percent of all fatal crashes in the county between 2011 and 2015. The RSAs were conducted on the following five corridors:

- 1. Eisenhower Parkway from C Street to Bloomfield Road (January 2016, ~2.7 miles).
- 2. Emery Highway and Jeffersonville Road from North Avenue to Irwinton Road (June 2016, ~4.5 miles).
- 3. Gray Highway from Shurling Drive to Jones County line (October 2016, ~2.3 miles).
- 4. Mercer University Drive (SR-74) from Pio Nono Avenue (SR-247) to Oglesby Place (September 2017, ~1.4 miles).
- 5. Pio Nono Avenue (SR-247) from Eisenhower Parkway (SR-22) to Dora Street (September 2017, ~1 mile).

Several projects from the RSAs are in the GDOT queue for funding and implementation. An example of a safety improvement is shown in Figure 8.





Figure 8. SR22/US80 safety improvements with pedestrian hybrid beacon and supplemental delineation.

2.4 ALIGNMENT WITH OTHER SAFETY PROGRAMS AND PLANS

The approach to this Action Plan fits within the context of the traditional transportation planning process, which Macon Bibb already uses to set goals and objectives, identify programs and projects, and evaluate progress towards transportation priorities. While safety-specific plans and programs are critical to achieving the vision, it also is important that all programs and policies proactively integrate Safe System Approach into their decision-making processes. This Action Plan builds on multiple existing regional, State and Federal initiatives as discussed below.

2.4.1 REGIONAL ROAD SAFETY PROGRAMS

The Macon Area Transportation Study (MATS) is the Metropolitan Planning Organization (MPO) for the Macon area and includes all of Macon-Bibb County.

As part of Federal regulations, the MATS (with input from GDOT, FHWA, MTA, and Federal Transit Administration [FTA]) develops the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program (UPWP).

Macon-Bibb County Vision Zero Action Plan

The LRTP lays out the transportation strategy for the MPO area for a minimum of 20 years. The current target plan year is 2040. The LRTP serves as the official list of federally funded transportation projects and priorities throughout the MPO region.

In contrast to the 20-year time horizon, the TIP covers a period of 4 fiscal years. Any project listed in the TIP that receives Federal funding must already be listed in the LRTP. If a new project is to be added to the TIP, it must be simultaneously added to the LRTP.

Finally, the UPWP is the list of federally funded studies and ongoing activities, plus any supplementary planning projects identified by GDOT and the MATS board members. This set of planning projects is revised each fiscal year. Among the usual tasks supported in the UPWP, the MATS use demographic data, land use information, and analyses necessary for the developing and monitoring the LRTP and the TIP.

The UPWP, TIP, and LRTP are all public documents, available to the public on the MATS website (https://www.mats2040.org).

2.4.2 Georgia Highway Safety Plan FY2020

The Georgia Highway Safety Plan (HSP), developed by the GOHS, serves as Georgia's programmatic guide for implementing highway safety initiatives and an application for Federal grant funding from NHTSA.

Georgia's HSP is directly aligned with the priorities and strategies in the Georgia Strategic Highway Safety Plan (SHSP) and includes a wide variety of proven strategies as well as new and innovative countermeasures.

In October 2017, the PSRB was able to secure a grant from the GOHS to implement a public awareness campaign called *Arrive Alive* (Figure 9). The grant is applied for each year, and the county continues to receive this grant to date.



Figure 9. GOHS Arrive Alive Campaign.

2.4.3 GEORGIA STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

The SHSP is Georgia's comprehensive transportation plan. Housed within the GOHS, the operations manager for the SHSP works closely with a variety of internal and external partners at the Federal, State, and local levels, as well as with the private sector. The SHSP was updated in 2019 and covers the period 2019–2021. The current SHSP emphasis areas are shown in Table 1.

Table 1. GDOT SHSP Emphasis Areas (2019-2021).

GDOT SHSP Emphasis Areas							
1. Impaired driving	2. Non-motorized users						
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	a. Pedestrians						
3. Occupant protection	b. Bicyclists						
	5. Age-related issues						
4. Distracted driving	a. Young adult drivers						
	b. Older drivers						
6. Serious crash type	7. Vehicle type						
a. Intersection safety	a. Heavy trucks						
b. Roadway departure safety	b. Motorcycles						

The county evaluated the statewide SHSP emphasis areas to see if they are relevant in Macon-Bibb and included those that were, i.e., intersection safety and pedestrians. The county also works closely with the GOHS, which leads Georgia's SHSP to identify opportunities to implement some of the SHSP recommendations that are relevant to Macon-Bibb County.

2.5 EQUITY

This Action Plan takes an equitable approach by establishing inclusive actions to provide safe transportation options for all road users across the county. This approach recognizes the fact that certain communities are more affected than others. According to the U.S. Census Bureau, 2010–2014 American Commuter Survey 5-Year Estimates, 22 percent of rental households and 12 percent of all households in Macon-Bibb County have no access to a private vehicle. Those without access to a car must rely on other means of transportation, such as public transit, bicycling, and walking. However, as transportation facilities have mostly favored the personal vehicle, there are opportunities to improve the road network to better accommodate those without access to a car. Implementing this plan will prioritize resources to invest in the transportation options for these populations, as well as making high-injury street networks safer for all users.

2.6 ACTION PLAN EMPHASIS AREAS

This plan used crash data provided by the GDOT—available from the Georgia Electronic Accident Reporting System (GEARS) database—to conduct a comprehensive data-driven crash analysis. The analysis used the most recent 5 years of complete crash data (January 1, 2014, through December 31, 2018)².

Crash trends and feedback from county staff were used to identify emphasis areas—categories of crashes that represent some of the most prevalent crash characteristics.

The emphasis areas for Macon-Bibb County are:

- 1. Pedestrians;
- 2. Aggressive-driving;
- 3. Intersections; and
- 4. Corridors (i.e., High Injury Network [HIN]).

2.6.1 PEDESTRIANS

Pedestrians are at particular risk in Macon-Bibb County. Between 2014 and 2018, there were 41 pedestrian fatalities and 376 serious injuries. These numbers represent 27.9 percent of all

² At the time of performing the crash analysis, the Numetric crash query tool was not available. The GDOT has made available the Numetric tool in early 2020 for network screening, diagnosis and countermeasure selection. Currently, Macon Bibb is using the Numetric tool to query intersection crashes.

fatalities (total of 147 fatalities) and a significant 47.4 percent of all serious injuries (total of 794 serious injuries). These high numbers show an unsafe environment for pedestrians in Macon-Bibb County.

Table 2 and figures 10 and 11 present the pedestrian crash facts for the years 2014–2018.

Table 2. Pedestrian Crash Facts for the Years 2014–2018 (Source: Macon-Bibb County).

		Fatalities		Serious Injuries			
Year	Total	Pedestrians	%	Total	Pedestrians	%	
2014	30	7	23.3	134	66	49.3	
2015	26	6	23.1	134	82	61.2	
2016	27	8	29.6	170	89	52.4	
2017	28	7	25.0	175	103	58.9	
2018	36	13	36.1	181	36	19.9	
Total	147	41	27.9	794	376	47.4	

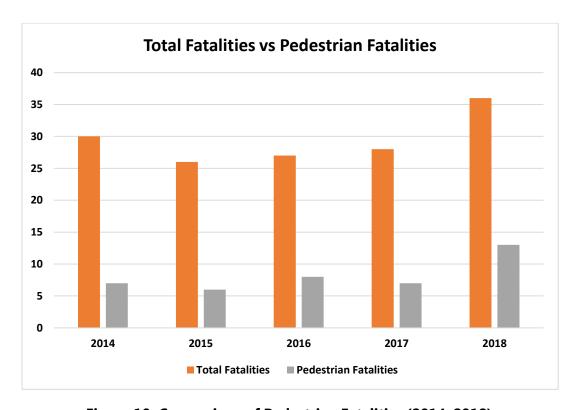


Figure 10. Comparison of Pedestrian Fatalities (2014–2018).

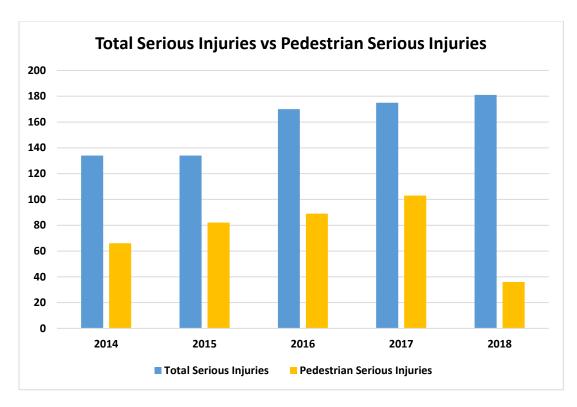


Figure 11. Comparison of Pedestrian Serious Injuries (2014–2018).

2.6.2 AGGRESSIVE DRIVING

NHTSA defines aggressive driving as occurring when "an individual commits a combination of moving traffic offenses so as to endanger other persons or property." Speeding is one component of aggressive driving.

In a county where pedestrians make up a disproportionate number of traffic deaths (27.9 percent) and serious injuries (47.4 percent), reducing aggressive driving crashes is critical.

Between 2014 and 2018, aggressive driving-related fatalities accounted for 16 percent of all fatalities and 23 percent of all serious injuries (Table 3, figures 12 and 13). The Bibb County Sheriff's Office considers the following driver-related contributing factors as indications that crashes may have involved aggressive driving: exceeding speed limit, disregarding traffic control devices, driver losing control, failure to yield, and following too close and driving too fast for conditions.

According to the Georgia FY 2020 HSP, Macon-Bibb County is ranked fifth highest in speeding-related fatalities within the State.

Table 3. Aggressive-Driving Fatalities for the Years 2014–2018 (Source: Macon-Bibb County).

		Fatalities		Serious Injuries			
Year	Total	Aggressive Driving	%	Total	Aggressive Driving	%	
2014	30	4	13.3	134	30	22.4	
2015	26	3	11.5	134	32	23.9	
2016	27	7	25.9	170	38	22.4	
2017	28	8	28.6	175	36	20.6	
2018	36	2	5.6	181	48	26.5	
Total	147	24	16.3	794	184	23.2	

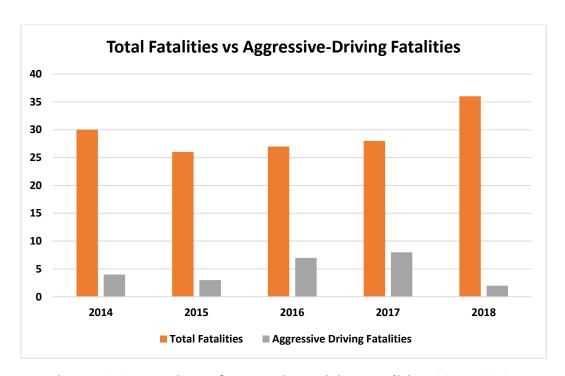


Figure 12. Comparison of Aggressive-Driving Fatalities (2014–2018).

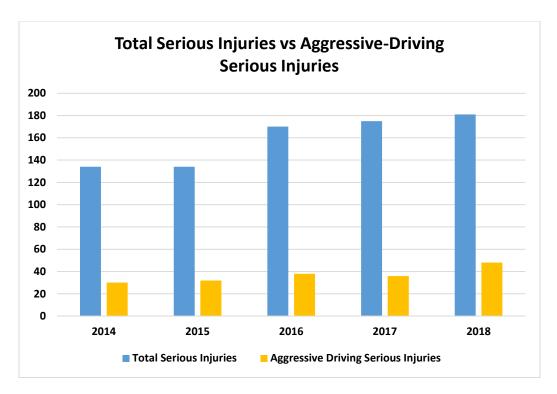


Figure 13. Comparison of Aggressive-driving Fatalities (2014–2018).

2.6.3 Intersection Crashes

A disproportionate number of crashes occur at intersections because of more points of conflict, as opposed to other places on the roadway network. The data indicated that about 43 percent of KSI crashes occurred at intersections (Table 4).

Table 4. KSI Crashes by Roadway Location (Source: Macon-Bibb County, 2014–2018).

Year	Total KSI	Roadway In	tersection	Non-Intersection		
Tear	Crashes	#	%	#	%	
2014	104	67	64.4	16	15.4	
2015	115	51	44.3	39	33.9	
2016	146	67	45.9	31	21.2	
2017	149	52	34.9	49	32.9	
2018	147	49	33.3	57	38.8	
Total	661	286	43.3	192	29.1	

Among the intersection crashes, the most frequently reported crash type was angle (233 or 35.2 percent) and rear-end (112 or 16.9 percent). Table 5 and figure 14 present the intersection crash facts for the years 2014–2018.

Year	Total KSI Crashes		igle shes		-end shes	Head-on Crashes				Dire	pe-Same ction shes	Ор	eswipe- posite on Crashes
		#	%	#	%	#	%	#	%	#	%		
2014	104	42	40.4	21	20.2	9	8.7	7	6.7	1	1.0		
2015	115	43	37.4	24	20.9	11	9.6	3	2.6	2	1.7		
2016	146	51	34.9	20	13.7	10	6.8	4	2.7	1	0.7		
2017	149	42	28.2	25	16.8	10	6.7	9	6.0	2	1.3		
2018	147	55	37.4	22	15.0	18	12.2	4	2.7	2	1.4		
Total	661	233	35.2	112	16.9	58	8.8	27	4.1	8	1.2		

Table 5. Macon-Bibb Roadway Intersection KSI Crashes by Crash Type.

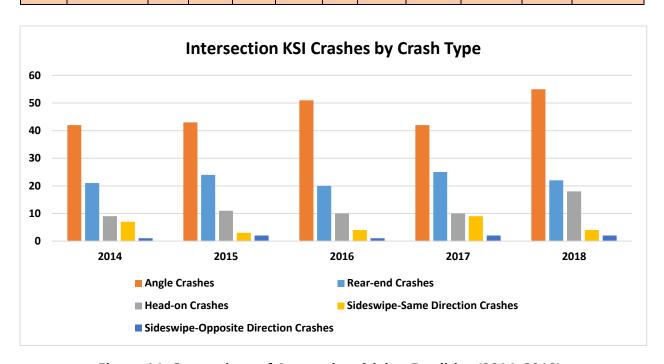


Figure 14. Comparison of Aggressive-driving Fatalities (2014–2018).

2.6.4 CORRIDORS

A HIN spotlights corridors with high concentrations of serious injuries and fatalities. The HIN was developed using the roadway network, geocoded crash data, and GIS software. The KSI crashes were joined spatially to the roadway network, allowing for crash analysis at the roadway segment level. Next, each roadway segment was ranked based on its crash density (measured as crashes per mile). Roadway segments with the highest weights were incrementally totaled to identify the roadway segments that contribute to the largest number of KSI crashes.

The HIN includes the county's top 13 roadways having the highest KSI crashes. Between 2014 and 2018, these 13 streets accounted for about 40 percent of all fatalities (58 out of 147) and

about 26 percent of all serious injuries (187 out of 794). Table 6 and figure 16 show the roadways that make up the HIN.

In addition to identifying the HIN, the county also calculated the KSI rate (expressed as KSI crashes per mile) for each of the 13 HIN roadways.

Using a KSI rate allowed the county to develop a more accurate comparison of segment crashes than a simple crash frequency. KSI per mile of roadway allows for an improved analysis across the system by improving the ability to compare crashes on roadways of differing lengths.

For example, two roadways could have the same number of crashes but different roadway lengths. By factoring in a measure of exposure (in this case route length), the calculation indicates which roadway may be a more promising choice for safety treatments.

Table 6 ranks the HIN roadways based on the KSI rate. The combined KSI rate for all the 13 HIN roadways is 2.38 KSI per mile.

	Corridor	Length	Total	Fatalities	Serious	KSI Rate
			KSI		Injuries	(KSI/mi)
1	Log Cabin Drive	4 mi	17	1	16	4.25
2	Shurling Drive	3 mi	11	3	8	3.67
3	Mercer University Drive	5 mi	16	5	11	3.20
4	Pio Nono Avenue-Pierce Avenue	8 mi	24	7	17	3.00
5	Second Street	3 mi	8	0	8	2.67
6	Eisenhower Parkway	15 mi	38	5	33	2.53
7	Gray Highway–	4 mi	10	3	7	2.50
	North Avenue	7 11111	10	3	,	2.30
8	Riverside Drive	11 mi	26	5	21	2.36
9	Emery Highway–Jeffersonville Road	9 mi	18	3	15	2.00
10	I-75*	22 mi	45	18	27	2.05
11	Vineville Avenue	3 mi	6	1	5	2.00
12	I-16*	9 mi	16	5	11	1.78
13	Forsyth Road	7 mi	10	2	8	1.43
	Total	103	245	58	187	2.38
*Pro	vided for discussion with GDOT					

Table 6. High Injury Network Corridors.

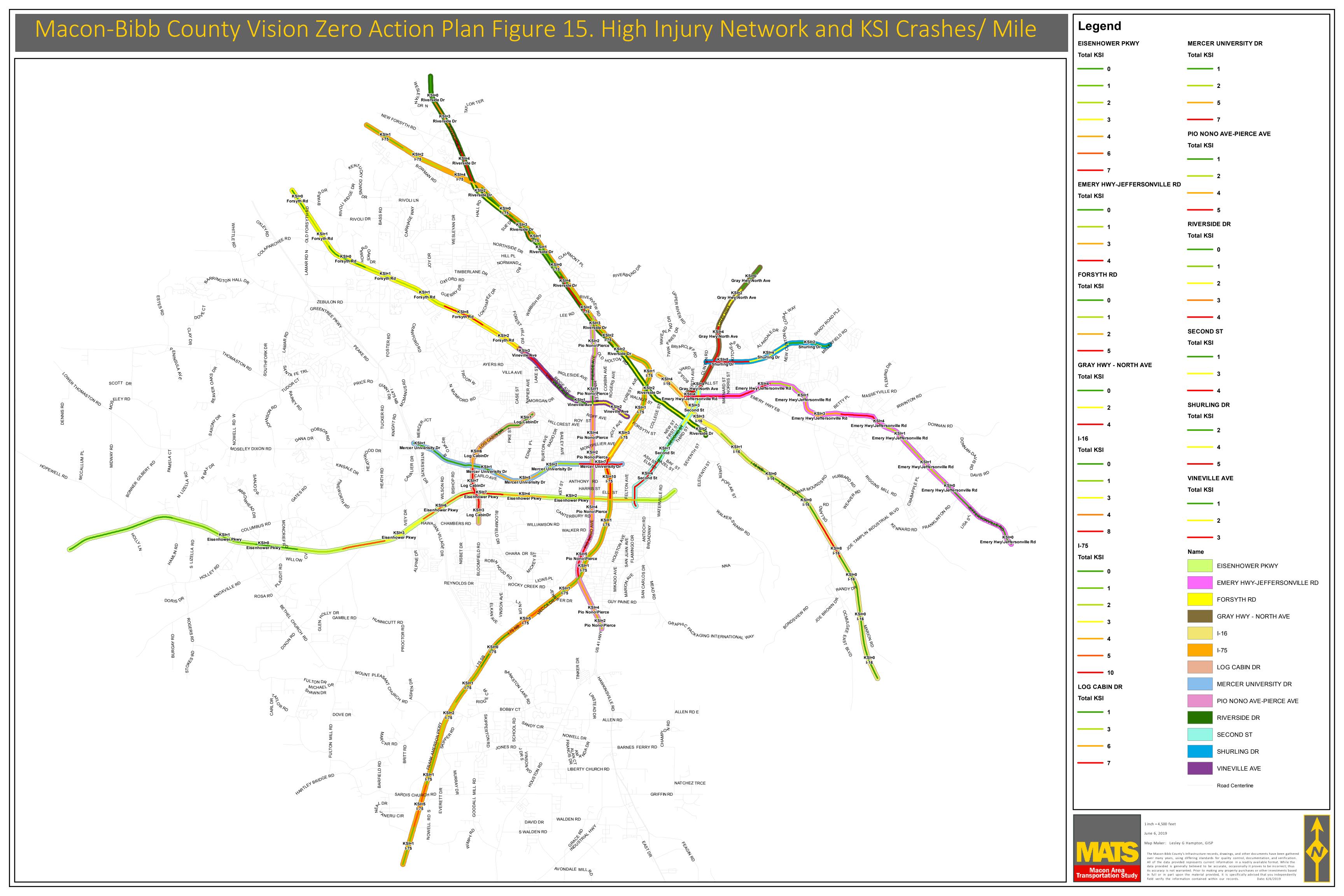
HIN Network Screening for Priority Lists

Network screening is the process of identifying sites for further investigation and potential treatment. The intent is to identify sites expected to benefit the most from targeted, cost-effective treatments.

The county conducted a network screening analysis of the HIN to identify the 1-mile segments within each of the HIN roadways that showed the highest KSI crashes. With limited funding availability, these segments are short enough to further analyze and implement low-cost countermeasures in the short term. They also offer the opportunity to perform RSAs by combining multiple 1-mile segments. Table 7 and Figure 15 shows this information.

Table 7. 1-mile Corridor Segments with Highest KSI.

	Corridor	From	То	Total KSI	Fatalities	Serious Injuries
1	I-75*	Mercer University Drive SB Exit Ramp	Eisenhower Parkway Exit	10	6	4
2	I-16*	Mile Marker 5	South of Ocmulgee East SB Ramp	8	4	4
3	Eisenhower Parkway	Bloomfield Road	4850 Eisenhower Parkway	7	1	6
4	Log Cabin Drive	S of Mercer University Drive	S of Gadson Drive	7	1	6
5	Mercer University Drive	College Street and Plant Street	Pansy Avenue	7	4	3
6	Eisenhower Parkway	4850 Eisenhower Pkwy	Romeiser Drive	6	0	6
7	Eisenhower Parkway	5350 Eisenhower Parkway	5670 Eisenhower Parkway	6	0	6
8	Log Cabin Drive	Hollingsworth Road	S of Mercer University Drive	6	0	6
9	Forsyth Road	Country Club Road	Covington Drive	5	1	4
10	I-75*	1/4 mi S of Jennifer Drive Bridge	At Unnamed Stream Crossing Bridge	5	3	2
11	I-75*	N of Sardis Church Road Exit	At Coppas Branch Stream Crossing	5	2	3
12	Mercer University Drive	Woodrow Place	West of N Atwood Drive	5	0	5
13	Pio Nono	Between Newberg				
	Ave–Pierce Ave	Avenue and Pio Nono Circle	I-75 Exit	5	1	4
14	Shurling Drive	Clinton Road	Print Place	5	1	4
*Pro	ovided for discu	ussion with GDOT				



3. VISION ZERO IMPLEMENTATION

As discussed in Section 2, Macon-Bibb County developed this Action Plan in consultation with the various county departments, safety partners (e.g., GDOT, GOHS, FHWA), and representatives from the public. These priorities and concerns, combined with the data analysis, form the basis of the strategies and actions in this Action Plan.

Implementation will be accomplished through the Safe System Approach, with strategies and actions applied to achieve Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles and Postcrash Care. This will be done under the auspices of a Vision Zero Program with leadership and partnership support and input to achieve Macon-Bibb County's safety goals.

MACON-BIBB GOAL: Eliminate traffic fatalities and serious injuries by 2040.

This Action Plan includes a comprehensive list of improvements that the Macon-Bibb County and its safety partners will pursue in the years ahead. However, in a cost-constrained environment, not all actions will take place simultaneously. Actions listed as "Short Term" will be considered for implementation within the next 2 years. Each of the actions has identified responsible organizations that will lead the implementation of the action and performance metrics. The county will prioritize, on an annual basis thereafter future actions from the comprehensive list working with its partners and as funding becomes available. Actions will be prioritized, but coordinated through a safe system approach to ensure that projects and programs are working together to achieve the vision zero goal. This is part of an evaluative approach whereby the actions in this plan are revised, as needed, to mobilize resources to those issues with the greatest need. The plan also list other medium and longer term actions that can be implements within 2 to 5 years and 5 to 10 years respectively. Any of these actions can be moved up depending on the future needs of the County.

To support implementation, appendix A identifies available countermeasures from <u>Crash Modification Factors (CMF) Clearinghouse</u>³ and <u>PEDBIKESAFE</u>⁴ that can be applied toward various implementation approaches across the elements of a Safe System Approach. Similarly, Appendix B outlines potential funding opportunities for Macon-Bibb County, including opportunities at the State and Federal levels.

³ http://www.cmfclearinghouse.org/

⁴ http://www.pedbikesafe.org/

3.1 VISION ZERO PROGRAM

The Macon-Bibb County Vision Zero Program establishes a framework for the county's approach to achieve its Vision Zero goal. Program strategies are set to institutionalize Vision Zero in Macon-Bibb County, strengthen partnerships, and regularly monitor and evaluate the outcome.

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area			
1. Es	1. Establish a Vision Zero program within the county.								
a.	The Pedestrian Safety Review Board (PSRB) endorses the Vision Zero Action Plan.	Short-term	Low	PSRB		All			
b.	County Commission will sign a pledge as a forward to the Vision Zero Action Plan. County Commission adopts the Vision Zero Action Plan by resolution.	Short-term	Low	Office of Mayor	PSRB	All			
C.	The PSRB will lead, manage, and oversee the implementation and evaluation of the Vision Zero Action Plan, until such time a Transportation Safety Manager position is hired.	Short-term	Low	PSRB	Office of Engineering	All			
d.	Create a Transportation Safety Manager position, within the Office of Mayor or the Sheriff's Department to oversee and develop strategies to improve traffic safety in Macon-Bibb County.	Short-term	Medium	Office of Mayor /Sheriff's Department	GDOT / FHWA / NHTSA	All			
e.		Medium- term	Medium	Office of Engineering	GDOT	All			

Macon-Bibb County Vision Zero Action Plan

Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
f. Future planning, design, and policy documents will review and, where relevant, reference and continue to build on the Vision Zero Action Plan.	Medium- term	Low	PSRB	Office of Engineering / Planning and Zoning Commission	All
2. Enact policy or legislative changes to improve traffic safety.					
 a. Build a coalition and consider the potential for approving traffic safety cameras for speed and red light violations. 	Long-term	Medium	Office of Mayor	Bibb County Sheriff's Office	Aggressive Driving
3. Incorporate Vision Zero Action Plan recommendations into future planning efforts (e.g., TIP, UPWP, LRTP)	Medium- term	Low	Planning and Zoning Commission	Office of Engineering	All
4. Adopt Complete Streets policy.	Medium- term	Low	Office of Engineering	PSRB	Corridor
5. Develop region-wide special events, including Safe Streets events that promote use and awareness of bicycles and bicycle education.	Short-term	Low	PSRB	Office of Communications / Bike Walk Macon	All
6. Encourage and promote national and regional senior driving education programs, such as the <i>We Need to Talk</i> program.	Short-term	Low	Office of Communications	Planning and Zoning Commission / GDOT	All

3.2 SAFE ROADS

The second strategy, Safe Roads, proposes identifying resources for capital improvements, prioritizing quick and/or low-cost improvements, and focusing on safety improvements.

Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
 Develop a program to review transit stop locations and conditions to ensure safety and accessibility, giving first priority to HIN locations. 	Medium- term	Low	Macon Transit Authority	Office of Engineering	Corridor/ Intersectio ns
2. Implement proven safety treatments on the H	IN.				
 a. Implement safety treatments (refer to Appendix A for a list of countermeasures) at minimum 3 locations annually. 3. Road Safety Audits (RSA) a. Implement recommendations of the previously conducted RSAs on the five 	Medium- term Medium- term	Medium High	Office of Engineering Office of Engineering	Planning and Zoning Commission	Corridor/ Intersections Corridor
b. Perform RSA on one corridor annually.	Medium- term	Low	Office of Engineering	GDOT, FHWA	Corridor
4. Evaluate Maintenance of Traffic (MOT) Plan requirements and revise to prioritize safe, accessible, and convenient routes for bicyclists and pedestrians. Enforce MOT plans in work zones.	Short-term	Low	Office of Engineering	Public Works Department	Corridor

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
5.	Partner with GDOT to conduct crash analysis using <i>Numetric</i> tool to identify both high-crash pedestrian locations and high-crash intersections.	Short-term	Low	Office of Engineering	GDOT	Corridor/ Intersectio ns
6.	Improve pedestrian facilities.					
	a. Complete sidewalk gaps and repairs and phase implementation to ensure connectivity (0.25–0.5 mi/year).	Medium-term	Medium	Public Works Department	Office of Engineering / PSRB	Corridor
	b. Complete comprehensive review of pedestrian timings at signalized intersections to ensure they meet the revised walking speed standard.	Medium-term	Medium	Office of Engineering	Public Works Department / GDOT	Intersectio ns
7.	Improve bicycle facilities.					
	 Develop a bike plan to focus on network connectivity (trails, etc.) and other infrastructure needs. 	Long-term	Medium	Planning and Zoning Commission	Bike Walk Macon / Office of Engineering	Corridor
	 Install bikeway network (bike lanes, sharrows, etc.) and the amenities that support it (bicycle detection, parking), and phase implementation to ensure connectivity. 	Long-term	High	Office of Engineering	Bike Walk Macon / Planning and Zoning Commission	Corridor

3.3 SAFE SPEEDS

Macon-Bibb County Vision Zero encourages traveling at safe speeds through better road design and enforcement.

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
1.	Speed Management.					
	 a. Pilot 25 mph posted speed limit on two major streets. 	Medium- term	Medium	Office of Engineering	Sheriff's Office	Aggressive Driving
	 b. Pilot Safe Neighborhoods with 20 mph traffic calming in two residential neighborhoods. 	Medium- term	Medium	Office of Engineering	Sheriff's Office	Aggressive Driving
2.	Speed enforcement.					
	 a. Conduct high-visibility enforcement on HIN corridors. 	Short-term	Low	Bibb County Sheriff's Office	Planning and Zoning Commission	Aggressive Driving
	 b. Work with regional enforcement agencies to integrate region-wide enforcement initiatives. 	Short-term	Low	Bibb County Sheriff's Office	Planning and Zoning Commission	Aggressive Driving
3.	Create messaging on HIN network to promote safe speeds and compliance with traffic laws.	Short-term	Low	Office of Communications	Sheriff's Office / Planning and Zoning Commission	Aggressive Driving
4.	Continue conducting the 100 Days of Summer Highway Enforcement of Aggressive Traffic (HEAT) project campaign during the summer holiday driving period from Memorial Day through Labor Day.	Short-term	Low	Bibb County Sheriff's Office	GOHS	Aggressive Driving

3.4 SAFE ROAD USERS

Safe Road Users involves that both those who manage and design the roads and those who use them be responsible for eradicating serious injuries and fatalities on the roads.

		Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
1	in fa	entify and install signage at critical tersections to permit increased fines for ilure to stop for pedestrians in a marked osswalk.	Medium- term	Medium	Office of Engineering	Public Works Department / GDOT	Pedestrians
2	. Sa	afe Routes to Schools.					
	a.	Explore with school board the possibility of developing a Safe Routes to School (SRTS) Program.	Short-term	Low	Bibb County Public Schools	GDOT / Office of Engineering	Pedestrians
	b.	Explore with school board the possibility of creating and using a traffic-safety curriculum for elementary schools to teach and encourage critical traffic-safety behaviors.	Short-term	Low	Bibb County Public Schools	GDOT / Office of Engineering	Pedestrians
	C.	Supply crossing guard safety kits to schools.	Short-term	Low	Bibb County Public Schools	GDOT / Office of Engineering	Pedestrians
	 d. Increase the number of crossing guards at schools through a volunteer training program. 		Short-term	Low	Bibb County Public Schools	GDOT / Office of Engineering	Pedestrians
	e.	Pilot automated school bus and school zone enforcement.	Short-term	Medium	Bibb County Public Schools	GDOT / Office of Engineering	Pedestrians

Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
3. Provide information to the public (develop a Vi	sion Zero webp	page).			
a. Publish an annual Vision Zero progress report that documents the efforts and funding toward Vision Zero; include implementation status; crash statistics, and key traffic citation metrics; and summaries of the effect of safety countermeasures.	Short-term	Medium	Office of Communications	PSRB / Planning and Zoning Commission	General
 Establish dashboard for all crash and safety data on the Vision Zero webpage. 	Short-term	Low	Office of Information Technology	PSRB / Planning and Zoning Commission	General
4. Inform the public of Vision Zero efforts.					
 a. Develop a Vision Zero website/page to provide information on crash statistics, Vision Zero projects, progress, and annual reports. 	Short-term	Low	Office of Information Technology	Office of Communications	General
b. Develop a Vision Zero project branding/logo and use it consistently on projects that include safety elements, county email signatures, back of parking receipts, etc.	Medium- term	Low	Office of Communications	Office of Engineering / Public Works Department	General
 c. Share Vision Zero messages regularly on county-owned communications channels and social media. 	Short-term	Low	Office of Communications	PSRB	General
 d. Earn more media around traffic safety work. 	Short-term	Low	Office of Communications	PSRB	General

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
e	e. Host annual Vision Zero safety summit.	Medium- term	Low	PSRB	Office of Communications	General
f	Create a network of Vision Zero partnerships (e.g., Navicent Health, Bike Walk Macon, Macon Transit Authority, AARP Georgia) that pledge to support Vision Zero by disseminating safety and educational information.					General
Ç	g. Partner with GDOT and GOHS to further enhance public messaging during National and regional safety campaigns, such as Click It or Ticket (CIOT), 100 days of summer heat, Border to Border, Operation Zero Tolerance, Operation Southern Shield, Drive Sober or Get Pulled Over, Hands Across the Border, April Distracted Driving Month, and St. Patrick's Day.	Medium- term	Low	PSRB	Sheriff's Office / Office of Communications	General
	Expand SeeClickFix system to track, manage, and prioritize resident requests for traffic safety improvements.	Short-term	Low	Public Works Department	Office of Communications	General
	Survey Macon residents on their transportation habits and perceptions surrounding unsafe driving behaviors.	Medium- term	Low	PSRB	Office of Communications	General

3.5 SAFE VEHICLES

Macon-Bibb County promotes advancement of vehicle technology to improve the safety for all road users.

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
alteri coun	nty staff to maintain and increase native transportation options in the ity, especially in underserved munities.	Medium- term	Medium	Public Works Department	Macon Transit Authority	Pedestrians
oper	nty staff to provide training on the safe ation of county vehicles to county loyees.	Medium- term	Medium	Public Works Department	Macon Transit Authority	General

3.6 Post-crash Care

Health outcomes for victims of collisions rely on the ability of the emergency medical care system to quickly locate and provide emergency first responder care to stabilize victims and transport them to hospital for the appropriate care and treatment.

	Action Description	Timeline (Short-, Medium-, Long-term)	Cost (Low, Medium, High)	Lead Agency	Partners	Emphasis Area
1.	Review emergency response protocols, including travel times for suspected serious injury-crash patients and develop recommendations as appropriate.	Long-term	Medium	Fire Department	Navicent Health	General
2.	Work with GDOT to train first responder in Traffic Incident Management (TIM).	Medium	Long-term	Fire Department	GDOT	General

4. How to GET INVOLVED

Macon-Bibb County officials and staff need the help of the community to complete the actions presented in this plan and to eliminate traffic fatalities and serious injuries in Macon-Bibb County by 2040. Everyone has a responsibility to make safe transportation choices and to spread the word about why traffic safety matters—making the county's efforts even more effective.

For more information on Macon-Bibb's Vision Zero program, visit https://psrb.maconbibb.us/vision-zero/ or contact Gregory Brown, Senior Planner, at gbrown@mbpz.org.

When **driving**, be aware of surroundings. Obey the rules of the road, observe speed limits, and yield to pedestrians and bicyclists when turning at intersections.

When **bicycling**, obey the rules of the road and use lights and reflectors at night.

As a **pedestrian**, stay alert and stay visible to the extent possible, and do not assume that drivers see you or will yield when turning.

APPENDIX A. COUNTERMEASURE TOOLBOX

These countermeasures are tools that can be applied to various implementation approaches across the elements of Safe System Approach. The resources included in the table are summarized below:

- FHWA Crash Modification Factor (CMF) Clearinghouse: A CMF is used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. The Crash Modification Factors Clearinghouse provides a searchable online database of CMFs, along with guidance and resources on using CMFs in road safety practice. It also provides guidance to researchers on best practices for developing high-quality CMFs.
- **FHWA PEDBIKESAFE:** The Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE) and Bicycle Safety Guide and Countermeasure Selection System (BIKESAFE) are intended to provide practitioners with the latest information available for improving the safety and mobility of those who walk and bike.

Countermeasure Categories	Countermeasures	Efficacy	Cost	Complexity	TOCAHOH IVDE	Included in SSAR Countermeasure List	Included in HSIP Cycle 8 / LRSM	Included in FHWA CMF Clearinghouse	Included in FHWA PEDBIKESAFE	Countermeasure Notes
	Pedestrian Countdown Signal Head				Signalized Intersections	Yes	Yes		Yes	
	Increase Pedestrian Crossing Time, Pedestrian Detection	Med	Low	Low	Signalized Intersections				Yes	
	Leading Pedestrian Interval	Med	Low	Low	Signalized Intersections	Yes		Yes	Yes	
	New Traffic Signals	High	High	Med	Unsignalized Intersections				Yes	If signal is warranted
Signalization	Pedestrian Hybrid Beacon	High	High	Med	Mid-block Locations; Unsignalized Intersections	Yes			Yes	Requires marked crosswalk
	Pedestrian-activated Crosswalk Sign		Med	Low	Mid-block Locations; Unsignalized Intersections	Yes				
	Pedestrian-activated Crosswalk Beacon		Med	Low	Mid-block Locations; Unsignalized Intersections	Yes	Yes			
	Signal-timing Improvements (including extend all-red time)	High	Low	Low	Signalized Intersections				Yes	
	Bulb-outs / Curb Extensions	Med	Low	Low	All Intersections	Yes			Yes	
	Sidewalk / Pathway to Close Gap	Unknown	Med	Med	All Streets		Yes		Yes	
Geometric	Narrow Lanes	Med	Med	Low	All Streets			Yes	Yes	
	Pedestrian Refuge Islands/Medians	High	Med	Low	All Intersections and Mid-block Crossing Locations	Yes			Yes	

Countermeasure Categories	Countermeasures	Efficacy	Cost	Complexity	Location Type	Included in SSAR Countermeasure Lis	Included in HSIP Cycle 8 / ^t LRSM	Included in FHWA CMF Clearinghouse	Included in FHWA PEDBIKESAFE	Countermeasure Notes
	Separated Bikeways (Cycle tracks)	Med	High	High	Typically Arterials			Yes	Yes	
	Road Diets	High	Med	High	Multilane Arterials	Yes			Yes	
	Roundabouts	High	High	High	Controlled Intersection	S	Yes	Yes	Yes	
	Shared-use / Bicycle Path	High	High	High	Corridors with Adjacent Excess Right-of-Way	t	Yes		Yes	
	Bike Box	Low	Low	Low	Signalized Intersections	5	Yes			MUTCD interim approval
	Bike Intersection Markings	Med	Low	Low	All Intersections			Yes	Yes	
	Bike Lane				Typically Collectors	Yes	Yes	Yes	Yes	
	Buffered Bike Lanes	Low	Med	Med	Typically Arterials		Yes			
	Green Paint / Conflict Zones	Low	Med	Low	All Streets		Yes	Yes		MUTCD interim approval
	High-visibility Crosswalks with Advance STOP or YIELD Lines	High	Low	Low	All Crossing Locations	Yes			Yes	
Signs, Markings,	Intersection, Street-scale Lighting (Unsignalized Intersections)	High	Med	Low	Unsignalized Intersections	Yes			Yes	
Operational	Intersection, Street-scale Lighting (Signalized Intersections)	Low	Low	Low	Signalized Intersections	s Yes	Yes		Yes	
M (u Pa (n Pr	Marked Crossings (unsignalized intersections)	Low	Low	Low	Unsignalized Intersections; Mid-bloc Locations	k	Yes		Yes	
	Parking restrictions near intersections (nearside locations)	High	Low	Low	All Intersections		Yes		Yes	
	Protected Turns (turn pockets and protected or split signal phasing)	High	Med	Med	Signalized Intersections	5				
	Restrict or Prohibit Turns (including Right Turn on Red Restriction)	Med	Low	Low	All Intersections (Signalized Intersections for RTOR)				Yes	

Countermeasure Categories	Countermeasures	Efficacy	Cost	Complexity	Location Type	Included in SSAR Countermeasure Lis	Included in HSIP Cycle 8 / t LRSM	Included in FHWA CMF Clearinghouse	Included in FHWA PEDBIKESAFE	Countermeasure Notes
Speed Control Measures, Miscellaneous	Dynamic / Variable Speed Warning Sigr	ns Med	Med	Low	Countywide	Yes	Yes			
Education	Education, PSAs	Med	Unknown	Unknown	Countywide				Yes	
Enforcement	Video enforcement for red light running or speeding	High	Unknown	High	Countywide	Yes		Yes	Yes	Requires legislative changes

APPENDIX B. FUNDING OPPORTUNITIES

The following table summarizes several competitive grant funding programs available to local agencies for safety-related plans, infrastructure, or education/encouragement programs. Grant sources and requirements change often. Readers are advised to contact the agencies in charge of administering each grant to confirm information presented in this appendix.

Name	Administering Agency	Local Match	Eligible Projects	Notes & Requirements
Safe Routes to School	GDOT	Not required	 May address the five Es: education, enforcement, engineering, emergency services, and evaluation Project coordination 	 Applicant must be a nonprofit organization
Highway Safety Improvement Program (HSIP)	GDOT	0–10% match, depending on engineering countermeasure	 Local roadway infrastructure projects with demonstrated crash- reduction potential 	 Projects located in areas with high-crash rates or high risk for crashes Nonsafety elements cannot exceed 10% of construction costs Focused on low-cost safety countermeasures that are implemented incrementally Determined by benefit-to-cost ratio
Highway Safety Grants Program	Georgia Office of Highway Safety (GOHS)	Not required	 Must relate to a Program Priority Area: alcohol-impaired driving, drug-impaired driving, occupant protection, police traffic services, motorcycle safety, distracted driving, emergency medical services, pedestrian and bicycle 	 Application must be supported by local crash data

Name	Administering Agency	Local Match	Eligible Projects	Notes & Requirements
			safety, roadway safety and traffic records, or public relations and marketing	
Accelerating Safety Activities Program (ASAP)	FHWA	20% required for all proposals	 Demonstration projects Training, workshops 	 Must be an FHWA Safety Focus State: Georgia is currently a bicycle and pedestrian focus State Only proposals of \$20,000 or less accepted Every Day Counts and/or data- driven safety analysis receives additional consideration
Section 405 National Priority Safety Programs	NHTSA	20% required	 Categories included occupant protection, information systems improvements, impaired driving, distracted driving, graduated licensing, non-motorized safety 	 In 2019, Georgia was awarded grants in five categories (occupant protection, information systems, impaired driving, motorcyclist safety, and non- motorized safety).
Local Technical Assistance Program	GDOT	None required	Technical assistance and trainingEquipment loans	 Contact Beverly Fontenot, LTAP Program Manager at 404-507- 3436 or bfontenot@dot.ga.gov